



Aerosol generator for the defined atomization of oils and use on filter test rigs

## Description

The PLG 1000 is a cold atomizer intended for use in air-conditioned rooms. If the room is unable to be air-conditioned, then a heatable version of the device should be used, e.g. PLG 2000 H.



Fig. 1: PLG 1000 **Startup** The liquid to be dispersed is filled in the reservoir. The nozzle system developed by Palas® is immersed in the liquid. This nozzle system is based on the Laskin principle and guarantees extremely precise dosing constancy with uniform particle size. The mass flow is adjusted using the volume flow through the nozzle. The volume flow is controlled by a pressure regulator and a manometer on the device.

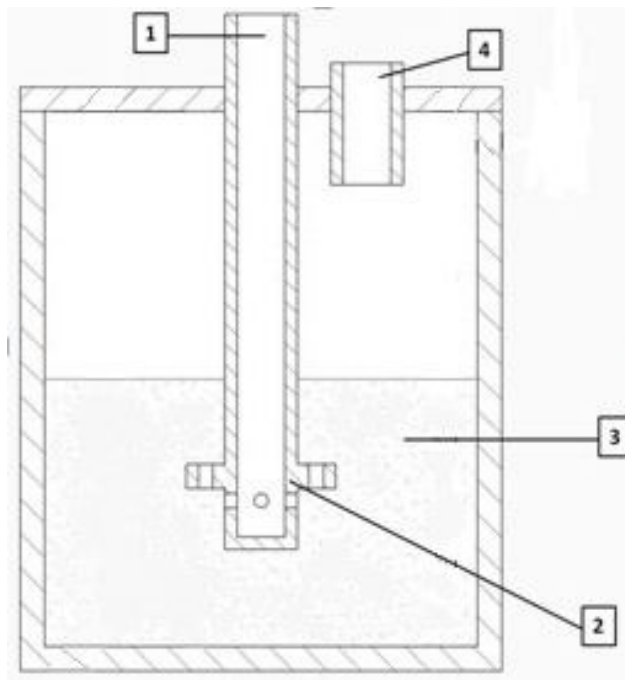


Fig. 2: Functional principle of the PLG series **Legend** 1) Compressed air 2) Special Laskin nozzle 3) Aerosol substance 4) Aerosol outlet

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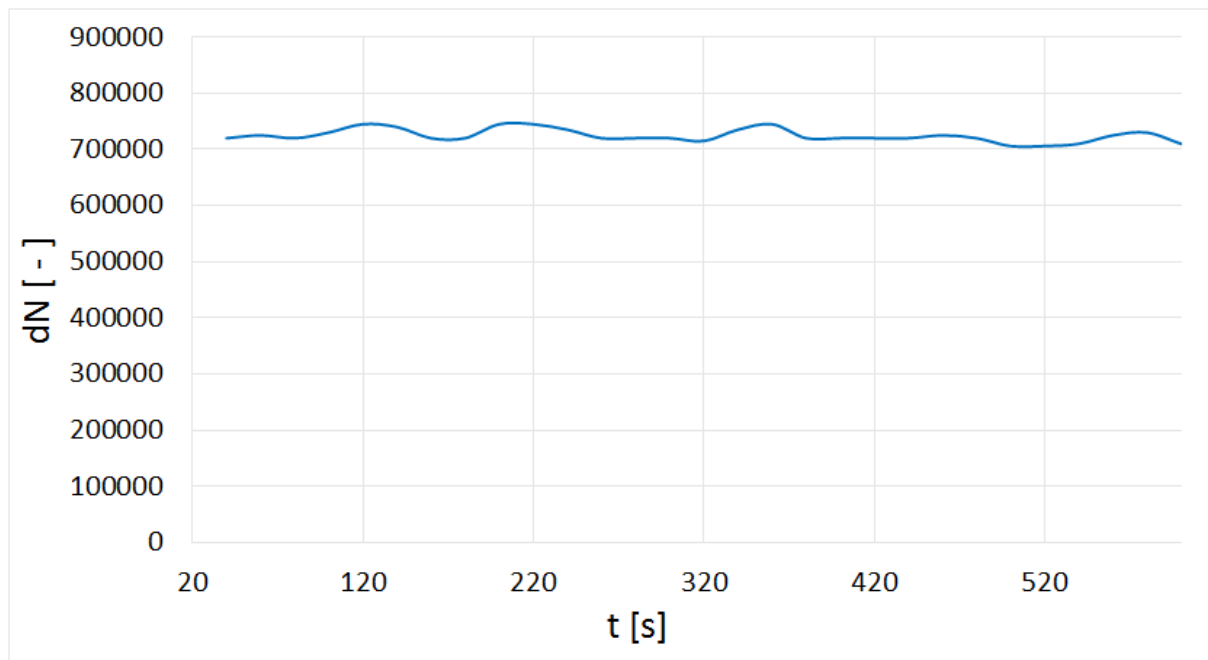


Fig. 3: Highly constant particle concentration over time at a resolution of 30 s The PLG 1000 generates mass flows of up to approx. 5 g/h max. (depending on the aerosol substance in use).

## Benefits

- Excellent short-term and long-term dosing constancy
- Best reproducibility with respect to particle size distribution and particle concentration
- Large mass volume range (very low and very high)
- Robust design (optionally resistant against chemically aggressive liquids)
- Compact and light
- Easy to operate, proven in industrial applications
- Reliable function
- Low maintenance

## Datasheet

<i>Parameter</i>	<i>Description</i>
<b>Volume flow</b>	1 - 23 l/min
<b>Dimensions</b>	280 • 130 • 100 mm (H • W • D)
<b>Weight</b>	approx. 2 kg
<b>Mass flow (particles)</b>	2.5 g/h
<b>Aerosol outlet connection</b>	Ø <sub>inside</sub> = 11 mm, Ø <sub>outside</sub> = 14 mm
<b>Mean particle diameter (number)</b>	0.4 µm (DEHS)
<b>Filling quantity</b>	70 ml

## Applications

- Filter industry/oil separators
  - Determination of separation efficiency
  - Determination of fractional separation efficiency
  - Loading test
  - HEPA/ULPA filters
- Test of cooling lubricant separators
- Comparison of particle measurement devices
- Tracer particles
- Flow visualization

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